

WHAT IS CLAIMED IS:

1. A method of dynamic re-configurable speech recognition comprising:
  - determining parameters of a background model and a transducer model for a received voice request;
  - determining a speech recognition model based on at least one of the background model and the transducer model;
  - re-scoring automatic speech recognition using the speech recognition model comprising the steps of:
    - generating word lattices representative of speech utterances in the received voice request;
    - concatenating the word lattices into a single concatenated lattice;
    - applying at least one language model to the single concatenated lattice in order to determine word lattice inter-relationships; and
    - determining information in the received voice request based on the re-scored results of the speech recognition model.
2. The method of claim 1, further comprising the steps of:
  - determining at least one sample period;
  - determining at least one of a new background model and a new transducer model based on the at least one sample period; and
  - generating a confidence score after applying the at least one speech recognition model to determine whether the generated lattices are acceptable.
3. The method of claim 2, wherein:
  - the parameters of the background model are determined based on a first sample period;
  - the parameters of the transducer model are determined based on a second sample period; and
  - the confidence score is compared to a predetermined value in order to determine whether to perform the automatic speech recognition process again.
4. The method of claim 2, further comprising the steps of:
  - saving at least one of the parameters of the background model and the parameters of the transducer model; and

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determining the adapted speech recognition model based on the at least one sample period and at least one of the background model and the transducer model.

5. A system for dynamic re-configurable speech recognition comprising:
  - a background model estimation circuit for determining a background model of a voice request based on estimated background parameters and user information;
  - a transducer model estimation circuit for determining a transducer model of the voice request based on estimated transducer parameters and user information;
  - a background model adaptation circuit and a transducer model adaptation circuit for determining an adapted speech recognition model based on a speech recognition model and at least one of the background model and the transducer model;
  - a lattice concatenation circuit that concatenates at least two speech lattices based on speech utterances in the received voice request into a single lattice; and
  - a controller that applies at least one language model to the single concatenated lattice to determine relationships between the lattices.

6. The system of claim 5, wherein the controller determines at least one sample period and based on the at least one sample period activates at least one of the background model estimation circuit and the transducer model estimation circuit and where the controller generates a confidence score after applying the at least one speech recognition model to determine whether the generated lattices are acceptable.

7. The system of claim 6, wherein,
  - the background model is determined based on a first sample period;
  - the transducer model is determined based on a second sample period; and
  - the controller compares the confidence score to a predetermined value in order to determine whether to repeat the automatic speech recognition process.

8. The system of claim 6, wherein the controller saves at least one of the background model and the transducer model into storage; and wherein the adapted speech recognition model is based on the at least one sample period and at least one of the background model and the transducer model.

9. A carrier wave encoded to transmit a control program usable for

dynamic re-configurable speech recognition to a device for executing the control program, the control program comprising:

instructions for determining parameters of a background model of a received voice request;

instructions for determining parameters of a transducer model;

instructions for determining an adapted speech recognition model for a speech recognition model based on at least one of the background model and the transducer model;

instructions for re-scoring the results of the automatic speech recognition using the adapted speech recognition model comprising:

instructions for generating lattices for speech utterances in the received voice request;

instructions for concatenating the lattices into a single concatenated lattice; and

instructions for applying at least one language model to the single concatenated lattice in order to determine relationships between the lattices; and

instructions for determining information in the received voice request based on the adapted speech recognition model and the re-scored results of the adapted speech recognition model.

10. The carrier wave of claim 9, wherein the control program further comprises:

instructions for determining at least one sample period; and

instructions for determining at least one of a new background model and a new transducer model based on the at least one sample period.

11. The carrier wave of claim 10, wherein,

the background model is determined based on the first sample period; and

the transducer model is determined based on a second sample period.

12. The carrier wave of claim 10, further comprising:

instructions for saving at least one of the background model and the transducer model; and

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instructions for determining the adapted speech recognition model based on the at least one sample period and at least one of the background model and the transducer model.

13. A computer readable storage medium comprising:

computer-readable program code usable to program a computer to perform a method for dynamic re-configurable speech recognition, the method comprising:

determining parameters of a background model and a transducer model for a received voice request;

determining a speech recognition model based on at least one of the background model and the transducer model;

re-scoring automatic speech recognition using the speech recognition model, comprising the steps of:

generating word lattices representative of speech utterances in the received voice request;

concatenating the word lattices into a single concatenated lattice;

applying at least one language model to the single concatenated lattice in order to determine word lattice inter-relationships; and

determining information in the received voice request based on the re-scored results of the speech recognition model.

14. A method of dynamic re-configurable speech recognition comprising:

determining parameters of a background model and a transducer model for a received voice request;

determining a speech recognition model based on at least one of the background model and the transducer model;

re-scoring automatic speech recognition using the speech recognition model, comprising the steps of:

generating word lattices representative of speech utterances in the received voice request;

concatenating the word lattices into a single concatenated lattice;

applying at least one language model to the single concatenated lattice in order to determine word lattice inter-relationships; and

determining information in the received voice request based on the re-scored results of the speech recognition model.

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